

Please amend claims 12, 20-25, 27-28, 33 and 46-50, as follows:

12. (Amended) The method of [any one of claims 7 to 11] claim 7, wherein the KPAR-O microorganism further overexpresses at least one pantothenate biosynthetic enzyme in addition to overexpressing ketopantoate reductase.

20. (Amended) The method of [any one of claims 14 to 19] claim 14 or 19, wherein the microorganism overexpresses acetohydroxyacid synthetase or is transformed with a vector comprising an *ilvBN* nucleic acid sequence or an *alsS* sequence.

21. (Amended) The method of [any one of claims 14 to 19] claim 14 or 19, wherein the microorganism overexpresses acetohydroxyacid isomeroreductase or is transformed with a vector comprising an *ilvC* nucleic acid sequence.

22. (Amended) The method of [any one of claims 14 to 19] claim 14 or 19, wherein the microorganism overexpresses dihydroxyacid dehydratase or is transformed with a vector comprising an *ilvD* nucleic acid sequence.

23. (Amended) The method of [any one of claims 19 to 22] claim 19, wherein the microorganism overexpresses aspartate- α -decarboxylase or is transformed with a vector comprising a *panD* nucleic acid sequence.

24. (Amended) The method of [any one of claims 14 to 19] claim 14 or 19, wherein the microorganism further has a deregulated pantothenate biosynthetic pathway.

25. (Amended) The method of [any one of claims 14 to 19] claim 14 or 19, wherein the microorganism further has at least one mutant gene selected from the group consisting of a mutant *avlA* gene, a mutant *ilvE* gene, a mutant *ansB* gene and a mutant *alsD* gene.

27. (Amended) The method of claim 24 [or 26], wherein the microorganism is transformed with a vector comprising a *panBCD* nucleic acid sequence or a vector comprising a *panE1* nucleic acid sequence.

28. (Amended) The method of [any one of claims 14 to 19] claim 14 or 19, wherein pantothenate is produced at a level selected from the group consisting of a level greater than 10g/L, a level greater than 20g/L and a level greater than 40g/L.

33. (Amended) The method of claim 24 [or 26], wherein the microorganism overexpresses any of ketopantoate hydroxymethyltransferase, ketopantoate reductase, pantothenate synthetase and aspartate- α -decarboxylase derived from *Bacillus*.

46. (Amended) The method of [any one of claims 39 to 44] claim 39 or 41, wherein said panto-compound is pantothenate.

47. (Amended) The method of [any one of claims 39 to 44] claim 39 or 41, wherein said panto-compound is produced at a level selected from the group consisting of a level greater than 10g/L, a level greater than 20g/L and a level greater than 40g/L.

48. (Amended) The method of [any one of claims 39 to 44] claim 39 or 41, wherein said recombinant microorganism further has a deregulated pantothenate biosynthetic pathway or further has a deregulated isoleucine-valine (*ilv*) biosynthetic pathway.

49. (Amended) The method of [any one of claims 39 to 44] claim 39 or 41, wherein said recombinant microorganism further overexpresses *panD* and *panE*.

50. (Amended) The method of [any one of claims 39 to 44] claim 39 or 41, wherein said recombinant microorganism further has at least one mutant gene selected from the group consisting of a mutant *avtA* gene, a mutant *ilvE* gene, a mutant *ansB* gene and a mutant *alsD* gene.